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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,963	09/04/2002	Johannes Kuentler	200-1212	7007

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EXAMINER

TRAN, BINH Q

ART UNIT	PAPER NUMBER
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3748

21

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,963

Applicant(s)

KUENSTLER ET AL.

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the step of *“operating said turbine with open-loop control in response to said throttling”* in claim 5, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1, 4, 6-14, and 17-20 are rejected under 35 U.S.C. 102 (b) as being anticipated by

Yamazaki et al. (Yamazaki) (Patent Number 6,059,057).

Regarding claims 1, 9-11, and 17-18, Yamayaki discloses a method and apparatus for controlling the starting of an internal combustion engine (10) an exhaust aftertreatment device

Art Unit: 3748

(43) with a minimal threshold temperature for proper operation, wherein the method is performed within a predetermined time period after engine start, the method comprising: increasing an electrical load on an electrical generator that is driven by the engine (e.g. See col. 13, lines 5-45); and throttling an air intake of the engine to reduce an intake manifold pressure to a target pressure (e.g. See col. 13, lines 45-67; col. 14, lines 1-50).

Regarding claims 4, 13, Yamayaki further disclose that the engine has an exhaust gas recirculation system in which exhaust gases are conducted from an engine exhaust to an engine inlet via an exhaust gas recirculation valve (51), further comprising reducing a quantity of exhaust gases recirculated in response to said throttling (See col. 8, lines 22-33; col. 9, lines 5-67).

Regarding claims 6 and 14, Yamayaki further disclose that the throttling is discontinued when a gas temperature downstream of the aftertreatment device is below a threshold temperature (e.g. See col. 13, lines 5-67; col. 14, lines 1-50).

Regarding claim 7, Yamayaki further disclose the discontinuing said increasing and said throttling when an exhaust gas temperature downstream of the aftertreatment device is greater than said threshold temperature for proper operation of the aftertreatment device (e.g. See col. 13, lines 5-67; col. 14, lines 1-50).

Regarding claim 8, Yamayaki further disclose that the increasing the electrical load and said throttling are carried out only when a temperature of the engine is within a predetermined temperature interval (e.g. See col. 13, lines 5-67; col. 14, lines 1-50).

Art Unit: 3748

Regarding claim 19, Yamayaki further disclose that the increasing and said closing are performed with a predetermined time period after the engine is started (e.g. See col. 13, lines 5-45).

Regarding claims 12, and 20, Yamayaki further disclose that the diesel engine aftertreatment device is an oxidation catalyst (43) having a minimum threshold temperature for proper operation.

Claims 1, 3, 6-12, 14, and 17-20 are rejected under 35 U.S.C. 102 (b) as being anticipated by Fukuchi et al. (Fukuchi) (Patent Number 5,908,019).

Regarding claims 1, 9-11, and 17-18, Fukuchi discloses a method for controlling the starting of an internal combustion engine (1) an exhaust aftertreatment device (e.g. 16, 17, 18) with a minimal threshold temperature for proper operation, wherein the method is performed within a predetermined time period after engine start, the method comprising: increasing an electrical load on an electrical generator that is driven by the engine (e.g. See col. 5, lines 18-55); and throttling an air intake of the engine to reduce an intake manifold pressure to a target pressure (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 3, Fukuchi further disclose that the electrical load of said generator comprises an electrical heater (16).

Regarding claims 6 and 14, Fukuchi further disclose that the throttling is discontinued when a gas temperature downstream of the aftertreatment device is below a threshold temperature (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Art Unit: 3748

Regarding claim 7, Fukuchi further disclose the discontinuing said increasing and said throttling when an exhaust gas temperature downstream of the aftertreatment device is greater than said threshold temperature for proper operation of the aftertreatment device (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 8, Fukuchi further disclose that the increasing the electrical load and said throttling are carried out only when a temperature of the engine is within a predetermined temperature interval (e.g. See col. 3, lines 25-65; col. 6, lines 29-67; col. 7, lines 1-30).

Regarding claim 19, Fukuchi further disclose that the increasing and said closing are performed with a predetermined time period after the engine is started (e.g. See col. 3, lines 25-65).

Regarding claims 12, and 20, Fukuchi further disclose that the diesel engine aftertreatment device is an oxidation catalyst (e.g 16-18) having a minimum threshold temperature for proper operation (e.g. See col. 3, lines 25-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over both Yamazaki and Fukuchi in view of Taniguchi (Patent Number 5,716,586).

Art Unit: 3748

Regarding claims 2, and 15-16, both Yamazaki and Fukuchi discloses all the claimed limitation as discussed above except that the electrical load of said generator comprises at least one glow plug disposed in the engine.

Taniguchi teaches that it is conventional in the art, to use at least one glow plug disposed in the engine for controlling electrical load of the generator of the engine (See col. 21, lines 10-61).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use at least one glow plug disposed in the engine for controlling electrical load of the generator of the engine of both Yamazaki and Fukuchi, as taught by Taniguchi for the purpose of controlling the temperature of the catalytic converter during warming up, so as to further reduce emissions in the exhaust gas of the internal combustion engine, and improve the performance and the efficiency of the emission device.

Allowable Subject Matter

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose or render obvious the claimed combination including an engine has a variable geometry turbine coupled to an air inlet of the engine, further comprising operating said turbine with open-loop control in response to said throttling.

Art Unit: 3748

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents:

Matuoka et al. (Patent Number 5904,902), Hoshi et al. (Patent Number 6321530), Nakae et al. (Patent Number 5916130), and Yoshida (Patent Number 5785138) all disclose an exhaust gas purification for use with an internal combustion engine.

Art Unit: 3748

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (703) 305-0245. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (703) 308-2623. The fax phone number for this group is (703) 746-4561.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



BT
April 16, 2003

Binh Tran
Patent Examiner
Art Unit 3748